The opinion in support of the decision being
entered today was <u>not</u> written for publication
and is <u>not</u> binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
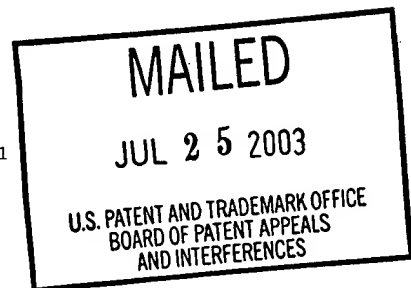AND INTERFERENCES

Ex parte MARKO MASCHEK
and MICHAEL HENNE

Appeal No. 2002-0401
Application 08/963,720[1]

ON BRIEF

MAILED

JUL 2 5 2003

U.S. PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before KRASS, BARRETT, and FLEMING, <u>Administrative Patent Judges</u>.

BARRETT, <u>Administrative Patent Judge</u>.

<u>DECISION ON APPEAL</u>

This is a decision on appeal under 35 U.S.C. § 134(a) from

the final rejection of claims 1-3. Claims 4-6 have been

indicated to be allowable if rewritten in independent form.

We reverse but enter a new ground of rejection.

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[1] Application for patent filed November 4, 1997, entitled
"Process for Generating Collision Signals," which claims the
foreign filing priority benefit under 35 U.S.C. § 119 of Federal
Republic of Germany Application 1 96 47 920.7-52, filed
November 20, 1996.

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BACKGROUND

The invention relates to method for generating synthetic collision data from a core signal.

Claim 1 is reproduced below.

1.   A process for generating at least one descriptive collision signal describing motor vehicle collisions, comprising the steps of:

deriving a core signal by low-pass filtering a collision signal actually measured;

splitting the core signal into a plurality of chronologically sequential signal segments;

simulating each of the signal segments using a respective transmission function;

combining the transmission functions to form an overall transmission function; and

forming the at least one descriptive collision signal by varying at least one parameter of the overall transmission function.

The examiner relies on the following reference:

Gioutsos et al. (Gioutsos)   5,345,402 September 6, 1994

Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which appellants regard as their invention.

Claims 1-3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Gioutsos.

We refer to the final rejection (Paper No. 6) (pages referred to as "FR__") and the examiner's answer (Paper No. 17) (pages referred to as "EA__") for a statement of the examiner's rejection, and to the brief (Paper No. 16) (pages referred to as "Br__") and reply brief (Paper No. 17½) for a statement of appellants' arguments thereagainst.

<div align="center">OPINION</div>

New ground of rejection under 37 CFR § 1.196(b)

Claims 1-6 are rejected under 35 U.S.C. § 112, first paragraph, based on a lack of enabling disclosure. We interpret the disclosed and claimed "transmission function" to correspond to what is called a "transfer function" in American engineering terminology in view of the form of equation (1) (spec. at 4) (i.e., the degree of the polynomial in the numerator being less than the degree of the polynomial in the denominator and the description of the roots of the polynomials as corresponding to poles and zeros, where "z" is usually referred to as "s," the variable of Laplace transformation, in American terminology). Although we do not purport to know everything, we are not familiar with a "transmission function" having the form of equation (1) that is not a "transfer function" and that models the shape of a time domain curve segment using (apparently) Laplacian variables. A "transfer function" defines the relationship between the input and the output of a system, and is

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usually a complex function equal to the ratio of output to the input of the device as a function of frequency. Assuming that each segment shown in appellants' Fig. 2 is the output, the enablement problem we see is that the specification does not appear to disclose the nature of the input to permit calculation of the transfer function and, thus, the claims are not enabled. For example, one would need to know if the input was a step function or a pulse or some other form of input and, for example, if the input was a pulse, one would need to know things like the shape (impulse, triangle, haversine, etc.), amplitude, duration, phase, etc., none of which are disclosed.

This rejection can be overcome in one of three ways: (1) pointing out where the specification describes the nature of the input to enable calculating the transfer function; OR (2) submitting an affidavit or declaration by one skilled in the art stating what the input is and how one skilled in the art would have known what that input was (mere attorney arguments will not be sufficient); OR (3) if "transmission function" is not the same thing as a "transfer function," explaining what is meant by the "transmission function" and how it can be computed knowing only the output curve segment in Fig. 2.

35 U.S.C. § 112, second paragraph

The examiner states (FR2; EA3):

> Claim 1 call[s] for "simulating each of the signal
> segments using a respective transmission function" and
> "combining the transmission functions to form an overall
> transmission function..." It is not clear whether the
> "simulated signal segments" are being combined[] or whether
> they become inputs to the overall transmission function.
> From the step of "splitting..." to the step of
> "combining...", the step of "simulating..." becomes
> "useless" since the result of the simulating step does not
> affect the steps of "combining" and "forming".

Appellants argue that the claims are clear when examined in

light of the specification by one skilled in the art (Br4). It

is argued (Br4-5):

> With respect to the term "transmission function", this is
> not a device having an input and output, but rather a
> mathematical description of a signal pattern, as is
> sufficiently known to one skilled in the art of signal
> processing. As such, to speak of these abstract functions
> as having physical "inputs" as suggested by the Examiner is,
> respectfully, a mischaracterization of the present invention
> as recited in the claims. . . . When these "transmission
> functions" are viewed as they are intended by the
> specification to be viewed, that is, as mathematical
> functions to which the physical acts of "feeding" signals
> thereto and possessing "inputs" and "outputs" have no
> relevance, it is respectfully submitted that the claims can
> be viewed as complying completely with 35 U.S.C. § 112, ¶2.

In view of our understanding that a "transmission function"

corresponds to a "transfer function," we do not agree with

appellants' arguments that inputs and outputs have no relevance

to a transmission function. Indeed a transfer function is

calculated from the ratio of the input and output. Nevertheless,

we do not sustain the indefiniteness rejection. The limitation

"simulating each of the signal segments using a respective transmission function" clearly states that a transmission function is produced from each signal segment; this is disclosed in the specification at page 3, line 31 to page 4, line 5. The next limitation of "combining the transmission functions to form an overall transmission function" is also clear; the step is described in the specification at page 4, lines 7-26. The examiner's statement that "[i]t is not clear whether the 'simulated signal segments' are being combined[] or whether they become inputs to the overall transmission function" (FR2; EA3) is inaccurate because the claim limitation clearly calls for "combining the transmission functions," not combining "simulated signal segments." Thus, the examiner's statement that "the result of the simulating step does not affect the steps of 'combining' and 'forming'" (FR2; EA3) is also inaccurate. The rejection of claim 1 is reversed.

35 U.S.C. § 102(b)

The examiner finds that Gioutsos teaches dividing a signal of interest into a plurality of signal segments or portions (EA3). However, the examiner fails to point to any place in Gioutsos to support this assertion and we fail to see any teaching of breaking a signal into "a plurality of chronologically sequential signal segments," as claimed. The examiner further finds that "Gioutsos et al also discloses an

algorithm or simulation for acting on each of the signal portions; combining the results of the simulation; and varying or evaluating the overall or combined function" (EA3). Again, the examiner does not point to any part of Gioutsos to support these assertions and we find no support in our review of the reference. Gioutsos uses a noise generating source and a filter to produce an infinite set of correlated crash data (col. 5, lines 3-6), and does not calculate transmission functions from chronologically sequential signal segments, combine the transmission functions into an overall transmission function, and then vary a parameter in the overall transmission function to form a collision signal. The examiner has failed to establish a _prima facie_ case of obviousness. The rejection of claims 1-3 is reversed.

<div align="center">CONCLUSION</div>

The rejections of claims 1-3 are reversed.

A new ground of rejection has been entered as to claims 1-6 pursuant to 37 CFR § 1.196(b).

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b) (amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides that, "A new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellant, <u>WITHIN</u>
<u>TWO MONTHS FROM THE DATE OF THE DECISION</u>, must exercise one of
the following two options with respect to the new ground of
rejection to avoid termination of proceedings (§ 1.197(c)) as to
the rejected claims:

> (1) Submit an appropriate amendment of the claims
> so rejected or a showing of facts relating to the
> claims so rejected, or both, and have the matter
> reconsidered by the examiner, in which event the
> application will be remanded to the examiner. . . .

> (2) Request that the application be reheard under
> § 1.197(b) by the Board of Patent Appeals and
> Interferences upon the same record. . . .

No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

<u>REVERSED - 37 CFR § 1.196(b)</u>

ERROL A. KRASS   )
Administrative Patent Judge   )
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LEE E. BARRETT   )   BOARD OF PATENT
Administrative Patent Judge   )   APPEALS
)   AND
)   INTERFERENCES
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MICHAEL R. FLEMING   )
Administrative Patent Judge   )

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